DEROGATION 4043

ALSTOM UBUNYE

MANUFACTURER	ALSTOM Ubunye Marievale Road, Vosterkroon, Nigel, 1490
CUSTOMER	Gibela
CONTRACT	
PROJECT	PRASA

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE	MOTOR BOGIE MB1
	DTR0009706804
SERIAL NUMBER	MB1 1333

CONTENTS

COMPLIANCE CERTIFICATE

We hereby declare, barring exceptions, reservations, or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completions of testing and verification, they completely satisfy all specified requirements and applicable standards and regulations.

CONSTRUCTOR APPROVAL	
DATE	20 February 2024
NAME	Kwababana Hlumisa
VISA	

I - Deviation / Derogation

II - Bogie configuration

B Bogie index

ALSTOM UBUNYE

PRODUCTS TRACEABILITY

Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Motor Bogie MB1	DTR0009706804	1333		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	1640		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03022		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2917		NGC
Wheel (Right)	AR00000174670	080	11-22	Bonatrans
Wheel (Left)	AR000000174670	118	11-22	Bonatrans
Wheelset (Rear)	AR00000178600	M3021		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2914		NGC
Wheel (Right)	AR00000174670	024	07-23	Bonatrans
Wheel (Left)	AR00000174670	091	02-23	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2311020		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310158		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1598	01-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4816	01-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4818	01-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4801	01-24	WEBTEC
Motor (front)	AR00000168516	21391		GIBELA
Motor (Rear)	AR00000168516	21313		GIBELA

PRESSING REPORT

DATE	
2/20/2024	

DATE VALIDATION	RESPONSABLE VALIDATION

PRASA

INSTRUCTION SHEET:	LOAD TEST : MOTOR BOGIE
FAMILY:	PROJECT:

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.90 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5587

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM[mm]	THEORETICAL [mm]
584.43	+ 2.00	= 586.43	MIN 585.00 MAX 587.50

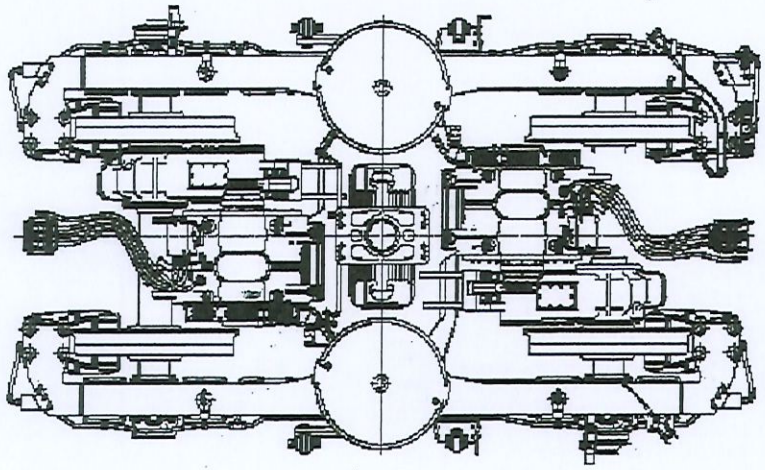
RIGHT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	38.39 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5534

BOGIE SERIAL N°	MB1-1333
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22357
COMPLETE BOGIE WEIGHT [Kg]	7301

OPERATOR	DATE
EDWARD	2/20/2024

OPERATOR STAMP
DC-3FI-6



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	-0.19 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	1.21 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.23 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.51 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	0.70 ✓

LEFT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.91 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5566

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.30	+ 0.00	= 587.30	MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓	THEORETICAL [mm]
-0.87	MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.00 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5670

GIBELA

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21313
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76201808	
Status:	QC PASS	
Derogations / Concession / Waiver N °:	N/A	
Customer modification:	N/A	
Missing parts:	N/A	

We hereby declare, barring exceptions, reservations or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completion of testing and verification, they completely satisfy all specified requirements , and applicable standards and regulations.

Date: 2024/02/05

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

2313

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216 Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test
Date: 23/11/2023
Name: Tulu

Assembly after test
Date: 30/01/2024
Name: Jacques & Tommas

ROTOR S/N	STATOR S/N	
MCRR-11-200	SIB-1328	

Bearing lubrification - Security operation
Incorrect lubrication can lead to engine failure with a safety risk in service
SRIL TROS 965.289

INSULATED CERAMIC BEARING DRIVE END – Security operation
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or NU 214-E-M1-P6-F1-H257A-J20AA-C4
SKF: NU 214 ECM/C4 VA3091
(cross out the references that have not been fitted)

N°:
ROMANIA : 0097 11/22 SN593 -5747155

S2 Radial play after assembly (0,042 / 0,114): 0,05

[X] OK [ ] NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Mesured quantity: Mln:144g - Max:149g

Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality validation Quality Insp. Name and signature
		Dima

INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : 6214-M-P6-J20AB-H257A-C4 or 6214-M-P6-J20AA-H257-C4
SKF 6214-M/C4-VL 0241
(cross out the references that have not been fitted)

Serial N°:
GERMANY : 0200 K020-0632 01/23 SN0415

S1 Radial play after assembly (0,021 / 0,067): 0,05

[X] OK [ ] NOK

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly

Mesured quantity: Mln:159g Max: 164g

Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality verification Quality Insp. Name and signature
		Dima

Référence appareil
AMX 814

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ) 10,662 [X] OK [ ] NOK

OPERATOR				Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,01	X OK ☐ NOK	Device serial number MMX814		☐ OK	☐ NOK
Out of round on toothed wheel 0,1 max: 0,08	X OK ☐ NOK	Device serial number MMX814		☐ OK	☐ NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,80	X OK ☐ NOK	Device serial number 9185F6007		☐ OK	☐ NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	X OK ☐ NOK	Device serial number S2249305.743		☐ OK	☐ NOK

Prep. & Final Assembly

OPERATOR			Quality verification	
F1 Torque tightening to 8 x 76 Nm:	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D28C188	QC 1 X 61 Nm	☐ OK ☐ NOK
F2 Torque tightening to 8 x 76 Nm:	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D27C188	QC 1 X 61 Nm	☐ OK ☐ NOK
F3 Torque tightening to 4 x 44 Nm: Fold locking plate	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D28 11039	QC 1 X 37 Nm	☐ OK ☐ NOK
F4 Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0087.89	QC 1 X 18 Nm	☐ OK ☐ NOK
F5 Torque tightening to 6 x 22 Nm:	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0E5269	QC 1 X 18 Nm	☐ OK ☐ NOK

Finishing

F1 Torque tightening to 4 x 22 Nm:	X OK ☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0E089	QC 1 X 22 Nm	☐ OK ☐ NOK

Grease protection transport

S3 18g (0/+4.5) CC	Mesured quantity: 18g		X OK	☐ NOK
S4 18g (0/+4.5) CC	Mesured quantity: 18g		X OK	☐ NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% Inspection of the production) X OK ☐ NOK

Final inspection	Comments
Quality Insp Name and Signature: Dina RMS	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM NF (PTY) LTD
Traction Motors Quality
2024 -01- 30
Name : Dina
Signature : RMS

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21391
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76336936	
Status:	QC PASS	
Derogations / Concession / Waiver N °:	N/A	
Customer modification:	N/A	
Missing parts:	N/A	

We hereby declare, barring exceptions, reservations or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completion of testing and verification, they completely satisfy all specified requirements , and applicable standards and regulations.

Date: 2024/01/24

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -01- 24
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

D1391

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216 Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test
Date:
Name:

Assembly after test
Date: 16/01/24
Name: Xolani Thomas

ROTOR S/N	STATOR S/N	
MU022-10-141	SIB-KP02	

Bearing lubrification - Security operation
Incorrect lubrication can lead to engine failure with a safety risk in service
SRIL TROS 965.289

S2 **INSULATED CERAMIC BEARING DRIVE END – Security operation**
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or ~~NU 214-E-M1-P6-F1-H257A-J20AA-C4~~
~~SKF: NU 214 ECM/C4 VA3091~~
(cross out the references that have not been fitted)

N°: Romania - 0097 09/23 SN59 - 1369794

S2 Radial play after assembly (0,042 / 0,114): 0,05	LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly (S4) Min:144g - Max:149g	Mesured quantity:	Quality validation
[X] OK [ ] NOK	Fitter 1(Name and signature) [signature]	Fitter 2(Name and signature) [signature]	Quality Insp. Name and signature Dina [signature]

S1 **INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation**
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : 6214-M-P6-J20AB-H257A-C4 or ~~6214-M-P6-J20AA-H257-C4~~
~~SKF 6214-M/C4-VL-0241~~
(cross out the references that have not been fitted)

Serial N°: GERMANY - 0200 XI16 - 0951 04/23 SN0248

S1 Radial play after assembly (0,021 / 0,067): 0,05	LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly (S3) Min:159g Max: 164g	Mesured quantity:	Quality verification
[X] OK [ ] NOK	Fitter 1(Name and signature) [signature]	Fitter 2(Name and signature) [signature]	Quality Insp. Name and signature Dina [signature]
Référence appareil AMX314			

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the Insulation resistance of the bearings to TROS 915.069 (> 50 kΩ) 4,5 GΩ			[X] OK	[ ] NOK
OPERATOR			Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,01	[X] OK [ ] NOK	Device serial number AMX314	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,05	[X] OK [ ] NOK	Device serial number AMX314	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,8	[X] OK [ ] NOK	Device serial number SIBPL001	[ ] OK	[ ] NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	[X] OK [ ] NOK	Device serial number S225Z005635		[ ] OK	[ ] NOK

Prep. & Final Assembly

OPERATOR			Quality verification		
F1 Torque tightening to 8 x 76 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N005283	QC 1 X 61 Nm	[ ] OK	[ ] NOK
F2 Torque tightening to 8 x 76 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N005283	QC 1 X 61 Nm	[ ] OK	[ ] NOK
F3 Torque tightening to 4 x 44 Nm: Fold locking plate	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N005281	QC 1 X 37 Nm	[ ] OK	[ ] NOK
F4 Torque tightening to 4 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N005268	QC 1 X 18 Nm	[ ] OK	[ ] NOK
F5 Torque tightening to 6 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N005268	QC 1 X 18 Nm	[ ] OK	[ ] NOK

Finishing

F1 Torque tightening to 4 x 22 Nm:	[X] OK [ ] NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N000077	QC 1 X 22 Nm	[ ] OK	[ ] NOK

Grease protection transport

S3 18g (0/+4.5) CC	Mesured quantity: 18g		[X] OK	[ ] NOK
S4 18g (0/+4.5) CC	Mesured quantity: 18g		[X] OK	[ ] NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production) [X] OK [ ] NOK

Final inspection	Comments
Quality Insp Name and Signature: Dima [signature]	

OBSERVATIONS

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA	TROS 916.216 2	Page 2

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -01- 17
Name : Dima
Signature : [signature]

DEROGATION 4043

ALSTOM UBUNYE

MANUFACTURER	ALSTOM Ubunye Marievale Road, Vosterkroon, Nigel, 1490
CUSTOMER	Gibela
CONTRACT	
PROJECT	PRASA

MANUFACTURER'S DELIVERY DOCUMENT

PRODUCT TYPE	MOTOR BOGIE MB2
	DTR0009706805
SERIAL NUMBER	MB2 574

CONTENTS

COMPLIANCE CERTIFICATE

We hereby declare, barring exceptions, reservations, or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completions of testing and verification, they completely satisfy all specified requirements and applicable standards and regulations.

CONSTRUCTOR APPROVAL	
DATE	20 February 2024
NAME	Kwababana Hlumisa
VISA	pp

I - Deviation / Derogation

II - Bogie configuration

B Bogie index

ALSTOM UBUNYE

PRODUCTS TRACEABILITY

Products Designation	Product Reference	Serial Number	Batch or Date Manufactured	Supplier
Motor Bogie MB2	DTR0009706805	574		Alstom - Ubunye
Motor Bogie Frame	AR00000176080	M1638		Alstom - Ubunye
Wheelset (Front)	AR000000177020	M03025		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2923		NGC
Wheel (Right)	AR00000174670	124	11-22	Bonatrans
Wheel (Left)	AR000000174670	110	11-22	Bonatrans
Wheelset (Rear)	AR00000178600	M03026		Alstom - Ubunye
Axle with fitted gearbox	AR00000177072	K2915		NGC
Wheel (Right)	AR00000174670	123	11-22	Bonatrans
Wheel (Left)	AR00000174670	088	11-22	Bonatrans
Pneumatic suspension (Right)	AR00000176127	2310170		Hutchinson
Pneumatic suspension (Left)	AR00000176127	2310175		Hutchinson
Brake unit with PB (Right rear)	AR00000174544	1596	01-24	WEBTEC
Brake unit without PB (Right front)	AR00000175185	4786	01-24	WEBTEC
Brake unit without PB (Left Front)	AR00000175185	4889	01-24	WEBTEC
Brake unit without PB (left rear)	AR00000175185	4805	01-24	WEBTEC
Motor (front)	AR00000168516	21417		GIBELA
Motor (Rear)	AR00000168516	21310		GIBELA

PRESSING REPORT

DATE	RESPONSABLE VALIDATION
2/20/2024	
DATE VALIDATION	RESPONSABLE VALIDATION

PRASA

INSTRUCTION SHEET:	LOAD TEST : MOTOR BOGIE
FAMILY:	PROJECT:

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.83 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q2	5592

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM[mm]	THEORETICAL [mm]
584.19	+ 3.00	= 587.19	MIN 585.00 MAX 587.50

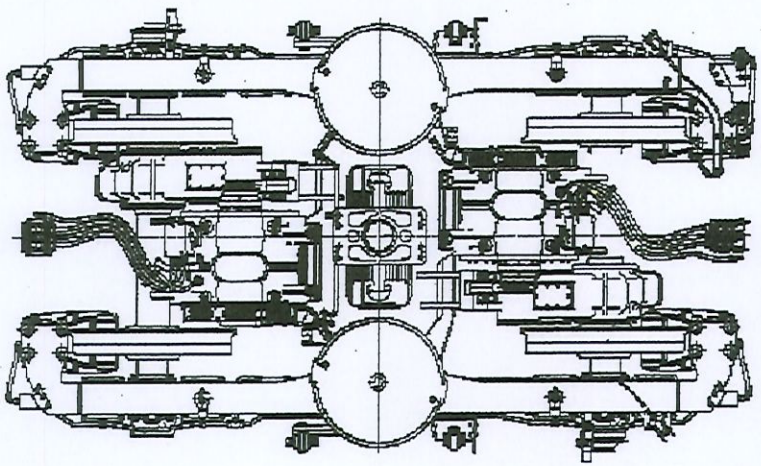
RIGHT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.51 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q4	5555

BOGIE SERIAL N°	MB2-574
BOGIE TYPE	MB
BOGIE WEIGHT UNDER LOAD [Kg]	22385
COMPLETE BOGIE WEIGHT [Kg]	7310

OPERATOR	DATE
EDWARD	2/20/2024

OPERATOR STAMP
BFI-21



	THEORETICAL	MEASURED
LOAD DIFFERENCE ON FRONT AXLE [%]	MIN 0.00 MAX 0.00	-0.17 ✓
LOAD DIFFERENCE ON REAR AXLE [%]	MIN 0.00 MAX 0.00	0.99 ✓
LOAD DIFFERENCE FRONT AXLE AND REAR AXLE [%]	MIN 0.00 MAX 0.00	-0.25 ✓
LOAD DIFFERENCE ON RAILS [%]	MIN 0.00 MAX 0.00	0.41 ✓
LOAD DIFFERENCE ON DIAGONAL WHEELS [%]	MIN 0.00 MAX 0.00	0.58 ✓

LEFT JACK LOAD
7376 Kg

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	37.61 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q1	5573

SECONDARY SUSPENSION ✓			
MEASURED [mm]	SHIM THICK [mm]	DIM. WITH SHIM [mm]	THEORETICAL [mm]
587.13	+ 0.00	= 587.13	MIN 585.00 MAX 587.50

DIFFERENCE IN RIGHT AND LEFT SUSPENSION HEIGHTS [mm] ✓	THEORETICAL [mm]
0.06	MIN -1.00 MAX 1.00

	THEORETICAL	MEASURED
WHEEL DIAMETER [mm]	MIN MAX	
GAP PRIMARY SUSPENSION [mm]	MIN 33.00 MAX 39.00	36.80 ✓
SHIM THICK [mm]		
WEIGHT ON WHEEL [Kg]	Q3	5666

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21417
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76539188	
Status:	QC PASS	
Derogations / Concession / Waiver N °:	N/A	
Customer modification:	N/A	
Missing parts:	N/A	

We hereby declare, barring exceptions, reservations or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completion of testing and verification, they completely satisfy all specified requirements , and applicable standards and regulations.

Date: 2024/02/05

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name : Dimakatso
Signature : KDMS

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

GIBELA RAIL	Compiled by M Kola	Date: 22/2/2022

2147

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216 Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test
Date: 18/01/24
Name: X CIANI

Assembly after test
Date: 31/01/24
Name: X CIANI & GODFREY

ROTOR S/N	STATOR S/N	
MCR22-11-169	GIB-1369	

Bearing lubrification - Security operation
Incorrect lubrication can lead to engine failure with a safety risk in service
SRIL TROS 965.289

INSULATED CERAMIC BEARING DRIVE END – Security operation
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or ~~NU 214-E-M1-P6-F1-H257A-J20AA-C4~~
~~SKF: NU 214-ECM/C4 VA3091~~
(cross out the references that have not been fitted)

N°:
ROMANIA : 0097 09/23 SN208 -1369794

S2 Radial play after assembly (0,042 / 0,114): 0,06 mm
[X] OK [ ] NOK

S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly
Min:144g - Max:149g

Mesured quantity:	Quality validation
Fitter 1(Name and signature)	Fitter 2(Name and signature) / Quality Insp. Name and signature
	DINA

INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : 6214-M-P6-J20AB-H257A-C4 or ~~6214-M-P6-J20AA-H257-C4~~
~~SKF 6214-M/C4-VL 0241~~
(cross out the references that have not been fitted)

Serial N°:
GERMANY : 0200 X116-0753 04/23 SN0133

S1 Radial play after assembly (0,021 / 0,067): 0,05 mm
[X] OK [ ] NOK

S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly
Min:159g Max 164g

Mesured quantity:	Quality verification
Fitter 1(Name and signature)	Fitter 2(Name and signature) / Quality Insp. Name and signature
	DINA

Référence apparell
AT2714

ALSTOM

GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ) 249 MΩ [X] OK [ ] NOK

OPERATOR			Device serial number	Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,01 mm	[X] OK	[ ] NOK	AJ2714	[ ] OK	[ ] NOK
Out of round on toothed wheel 0,1 max: 0,05 mm	[X] OK	[ ] NOK	AJ2714	[ ] OK	[ ] NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,85 mm	[X] OK	[ ] NOK	GIB-E01	[ ] OK	[ ] NOK

Sensor reference: DTR0000512252/DSD1830.19Q14HW	X OK	NOK	Device serial number: 6224/2CCO 7066	☐ OK	☐ NOK	

Prep. & Final Assembly

OPERATOR				Quality verification		
F1 Torque tightening to 8 x 76 Nm:	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5887	QC 1 X 61 Nm	☐ OK	☐ NOK
F2 Torque tightening to 8 x 76 Nm:	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5887	QC 1 X 61 Nm	☐ OK	☐ NOK
F3 Torque tightening to 4 x 44 Nm: Fold locking plate	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5881	QC 1 X 37 Nm	☐ OK	☐ NOK
F4 Torque tightening to 4 x 22 Nm:	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5868	QC 1 X 18 Nm	☐ OK	☐ NOK
F5 Torque tightening to 6 x 22 Nm:	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5868	QC 1 X 18 Nm	☐ OK	☐ NOK

Finishing

F1 Torque tightening to 4 x 22 Nm:	X OK	☐ NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) NCCC5917	QC 1 X 22 Nm	☐ OK	☐ NOK

Grease protection transport

S3 18g (0/+4.5) CC	Mesured quantity:	18g	X OK	☐ NOK
S4 18g (0/+4.5) CC	Mesured quantity:	18g	X OK	☐ NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% inspection of the production) — X OK ☐ NOK

Final Inspection	Comments
Quality Insp Name and Signature: Dina [signature]	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -01- 3 1
Name : Dina
Signature : [signature]

GIBELA

CERTIFICATION OF CONFORMITY

Inpection certificate according EN 10204-3.1

Product:	Traction Motors	6 ECA 3022 B
Serial Number:	N °	21310
Client / Customer:	ALSTOM UBUNYE (PTY) LTD	
Project:	PRASA	
P O Number:	76196177	
Status:	QC PASS	
Derogations / Concession / Waiver N °:	N/A	
Customer modification:	N/A	
Missing parts:	N/A	

We hereby declare, barring exceptions, reservations or exemptions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completion of testing and verification, they completely satisfy all specified requirements , and applicable standards and regulations.

Date: 2024/02/05

Function: Final Inspection

Perfomed and signed off by: Name_____ Dimakatso Mohoalali

Signature_____

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 05
Name : Dimakatso
Signature :

Gibela Rail
02 Shosholoza Avenue
M07 Traction Motor
1590

21310

ALSTOM GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Référence: TROS 916.216 Révision: 2

Documents de référence: AT00000325953 - AT00000325990

Assembly before test Date: 20/11/23 Name: Richman	Assembly after test Date: 02/02/24 Name: Xolani, Godfrey & Thomas

ROTOR S/N	STATOR S/N	
MCR22-11-155	SIB-1300	

Bearing lubrification - Security operation
Incorrect lubrication can lead to engine failure with a safety risk in service
SRIL TROS 965.289

S2 **INSULATED CERAMIC BEARING DRIVE END – Security operation**
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : NU 214-E-XL-M1-P6-F1-H257A-J20AB-C4 or ~~NU 214-E-M1-P6-F1-H257A-J20AA-C4~~
~~SKF : NU 214 ECM/C4 VA3091.~~
(cross out the references that have not been fitted)

N°: ROMANIA :- 0097 11/22 SN135 - 5747155

S2 Radial play after assembly (0,042 / 0,114): 0,06	S4 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly		
[X] OK [ ] NOK	Min:144g - Max:149g	Mesured quantity:	Quality validation
	Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
	[signature]	[signature]	Dima [signature]

S1 **INSULATED CERAMIC BEARING OPPOSITE DRIVE END side – Security operation**
Incorrect assembly can lead to engine failure with a safety risk in service
SRIL TROS 965.289
FAG : 6214-M-P6-J20AB-H257A-C4 or ~~6214-M-P6-J20AA-H257-C4~~
~~SKF 6214-M/C4-VL-0241~~
(cross out the references that have not been fitted)

Serial N°: GERMANY :- 0200 X 020 - 0621 01/23 SN0388

S1 Radial play after assembly (0,021 / 0,067): 0,05	S3 LUBRIFICATION WITH MOBILITH SHC 100 before cover assembly		
[X] OK [ ] NOK	Min:159g Max: 164g	Mesured quantity:	Quality verification
Référence appareil AMX 814	Fitter 1(Name and signature)	Fitter 2(Name and signature)	Quality Insp. Name and signature
	[signature]	[signature]	Dima [signature]

ALSTOM GIBELA

FINAL ASSEMBLY REPORT FOR THE MOTOR 6 ECA 3022 B - PRASA

Record the value of the insulation resistance of the bearings to TROS 915.069 (> 50 kΩ)	10,5 GΩ	[X] OK	[ ] NOK

OPERATOR				Quality verification	
Out of round at the end of the shaft drive end 0,05 max: 0,01	X OK	NOK	Device serial number DMX 814	OK	NOK
Out of round on toothed wheel 0,1 max: 0,05	X OK	NOK	Device serial number DMX 814	OK	NOK
sensor / toothed wheel play 0,7 (+/- 0,2): 0,80	X OK	NOK	Device serial number GIBFL0022	OK	NOK
Sensor reference: DTR0000512252/DSD1830.19Q14HW	X OK	NOK	Device serial number 22340054981	OK	NOK

Prep. & Final Assembly

OPERATOR				Quality verification	
F1 Torque tightening to 8 x 76 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D286188	QC 1 X 61 Nm	OK NOK
F2 Torque tightening to 8 x 76 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D286188	QC 1 X 61 Nm	OK NOK
F3 Torque tightening to 4 x 44 Nm: Fold locking plate	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) D25-11036	QC 1 X 37 Nm	OK NOK
F4 Torque tightening to 4 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0053289	QC 1 X 18 Nm	OK NOK
F5 Torque tightening to 6 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0053289	QC 1 X 18 Nm	OK NOK

Finishing

F1 Torque tightening to 4 x 22 Nm:	X OK	NOK	wrench reference (in the event of failure / absence of the motorized screwdriver) N0053277	QC 1 X 22 Nm	OK NOK

Grease protection transport

S3 18g (0/+4.5) CC	Mesured quantity: 18g		X OK	NOK
S4 18g (0/+4.5) CC	Mesured quantity: 18g		X OK	NOK

Final inspection following the check-list DTR0000452909 and DTR0000452910 (In the case of 100% Inspection of the production) X OK NOK

Final Inspection	Comments
Quality Insp Name and Signature: Dima	

OBSERVATIONS

GIBELA RAIL TRANSORT CONSORTIUM RF (PTY) LTD
Traction Motors Quality
2024 -02- 03
Name : Dima
Signature :